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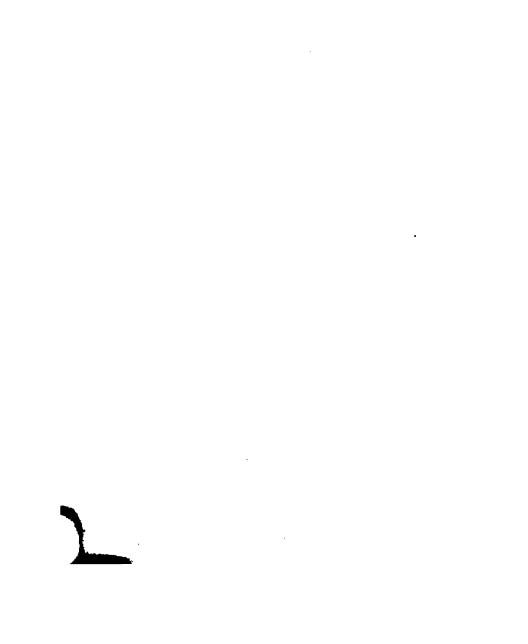
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ART AS APPLIED TO DRESS

WITH SPECIAL REFERENCE TO

HARMONIOUS COLOURING

By L. HIGGIN

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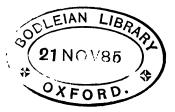
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ART,

AS APPLIED TO DRESS.

I.

INTRODUCTION.

UCH has been said and written on the difference between what is known as fine art, and constructive or decora-

tive art. Amongst the multiplicity of definitions and explanations of what is meant by the terms, an unlearned person seeking for light on the subject may well abandon the effort in despair; and perhaps this is scarcely to be wondered at, for into whatever ramifications it may branch, art is art after all, and its laws are equally applicable to the painting of a picture, the modelling of a statue, the construction or decoration of a building, or the clothing of the human body. Leaving aside, therefore, all distinctions, and looking upon art as the tangible expression of the science of beauty, in whatever direction we may seek it, we propose to apply such of the laws as are known, and about which there is no room for dispute, to the subject of the construction and choice of colour in dress. But as it is impossible to treat of any one application of art without touching on other and kindred ones, much of what we are about to say, especially as regards colour, will apply equally to decoration of other kinds than that of the person.

Perhaps nothing is more surprising to those who think on these subjects than the extraordinary absence of what may be called art culture amongst those whose daily avocations are most intimately connected with art of one kind or another; but the remark probably applies chiefly to those who make decorative art, or the ministering to the wants of the artistically inclined, their daily business. We must at least suppose that no one ventures on the profession of painting or sculpture without a thorough knowledge of the science of æsthetics, so far as it is a science.

We have numerous firms professing to supply "art furniture," "art fabrics," "artistic metal work" of all descriptions; we have one large "school," and many professors, of what is known as "art needlework;" and when one comes to inquire what means are taken to train and intelligently cultivate the numerous workers in this direction, strange as it may seem, it appears that nothing is done; and, to come to the root of the matter, a glib use of the word, and a great deal of what is known as "feeling for art"—an equivalent term for a "natural ear" for music—is all the stock-in-trade of the schools, the professors, and the purveyors.

True, there may be what is called an "art director," under whose guidance work is produced; but even this is by no means usual, nor does it always appear that the art director is anything more than a clever "feeler" himself.

At Messrs. Doulton's potteries the workers do, one and all, go through a regular training, and the result is shown in the beauty of the work produced. It may, therefore, be supposed that this establishment is an honourable exception to the foolish idea that artistic work can be produced by persons ignorant of the laws of art.

The Exhibition of 1851 drew the attention of at least the thinking portion of the public to the singular absence of artistic perception to be found in our national manufactures, and out of the impulse then given to art grew up a whole school of writers and thinkers and practical "feelers" after a better state of things.

It is, I think, allowed on all hands that

there is in human nature an instinctive perception of and longing for beauty, and that this instinct is capable of being gratified and improved without any exercise of the reasoning power. The unconscious education of taste by familiarity with good models has played an important part in the progress of art during the latter portion of this century. Within the last thirty years the teaching of such men as D. R. Hay, Owen Jones, Sir Charles Eastlake, and, to come down to the present day, of Morris and others, has produced a public taste which is greatly superior to anything that was known in the first half of the century; and growing familiarity with things that are good in taste—that is, which obey the laws of art—has given that amount of culture which may be obtained by a person possessing a natural ear for music by hearing good music, without any knowledge whatever of the science of music.

When it comes to composition, however, at least in music, it is acknowledged that a

study of counterpoint and harmony is a necessity. In decorative art, unfortunately, "feeling" is too often considered sufficient.

There is much to be thankful for in this improved taste; but after all, it is but "better than nothing." The thinkers in these matters lay down rules, and the unthinking follow them, not because they see any reason in them, but because Mr. So-and-so, who is an authority, says so; and the consequence is that Mr. So-and-so and Mr. Such-and-such, another authority, frequently flatly contradict each other.

Allowing, then, that what is called "taste" has decidedly advanced in England within the last quarter of a century, we may still deplore the fact, which becomes more and more evident the more one looks into the matter, that actual cultivation—that is, education other than that of the eye—is almost as far off as ever.

We say "almost" advisedly, and in spite of

the growing number of "schools of art," for which we cannot be too thankful.

Whether it is due to a fault in the teaching of the schools themselves, or whether it is the want of earnestness or of intelligence of the pupils, the painful fact remains that the students display an extraordinary absence of knowledge of the science of beauty, or that there is any such science at all, while they have frequently acquired a certain imitative talent which enables them to produce work of some merit themselves and to appreciate what is correct in the work of others. It is but at best, however, too often only "feeling." Ask them to explain to you why a certain treatment of a subject is or is not advisible, and you are fortunate if you obtain an intelligent answer.

The improved taste, such as it is, is more a fashion than a thought-out conclusion.

Nor is the seeker after some firm basis of faith in art matters much better off when he comes to study the question from books.

Amid the multiplicity of writers, he finds the foothold he thinks he has secured from one undermined and demolished by another. wanders painfully about, and finally, perhaps, gives the effort up, gladly concluding with some that "feeling for art" is a heaven-born gift, which he himself is fortunate enough to possess, and that genius needs no help from science. So he, too, trusts to his "feeling," which having grown up probably from familiarity with good models, and a good deal of empirical adventure of his own, is, as far as it goes, which after all is only the length of his own shadow, probably as good as that of anyone else; and if he possesses natural talent he becomes also a producer and an authority in his turn.

The more one studies the subject from books, and still more from the actual works of ancient Greece, one becomes convinced that writers like Hay are right in supposing that Greek art was the result of an intimate knowledge of the exact science of harmony applied to all the different expressions of art. The accurate and painstaking measurements which have been taken of the Parthenon, as well as of antique Greek statues, leave no room for doubt that these works of art were constructed in the most accurate accordance with laws of harmonic ratios expressed in numbers, which were evidently taught in their schools.

Hay worked and wrote in hopes of founding an exact science of beauty on the same principles for our time; but whether that dream will ever be fulfilled or not, it is certain that until some such system is founded, and becomes as familiar to the producer and as fixed as the science of music is at present, it is hopeless to expect works of art that will live, or any real agreement amongst our teachers.

There are, however, certain canons of art known and agreed on, and our hope is in this little book to collect them from among the many writers and thinkers, and to place them before the reader in such a simple and popular way that he may either be able to guide himself to a just and intelligent judgment, or that, seeing how far short they fall of what is needed, he may be induced to go into the subject himself, and add something of real value to the science of beauty.

Without, therefore, going into technicalities, or lending oneself to the teaching of one man more than another, the object of the present work is to try to find the points of agreement between all, and to apply the rules so obtained to the everyday needs of modern life.

We have already said that the laws of art apply to all its expressions alike; but the subject of dress is one that is almost wholly neglected from an art point of view. True, people are fond of talking of dressing artistically or picturesquely, but what do they mean by it? A copy of an old picture, or of an historical costume. Worse still, the adop-

tion of a dress suitable to the climate and to the way of living of the ancient Greeks in a modern drawing-room in foggy England. For the most part it means something *bizarre*, and frequently ugly. "Quaint" is the fashionable word for it, a term that may mean anything, but too often is only "affectedly odd," as Webster defines it.

Those who have studied the subject themselves must expect to find nothing new in these chapters. They are addressed to those who, though they may have made some pretensions to art, either as designers, embroiderers, or artistic dressers, have done so relying on their "feeling" only, and have given no thought or study to the subject itself.

The student who attempts to train himself by reading what others have written on this subject may well wonder at the earnestness with which those who call themselves artists frequently argue that there is nothing "scientific" in art—that, in fact, art and science are antagonistic. If not in so many words, they imply this throughout; and one cannot fail to see that they regard themselves as the objects of a special revelation in art "feeling" and practice, and sneer more or less openly at the believers in the power of science to help the heaven-born artist. In reply to this we need not do more than silently point to the works of ancient Greece.

Certain it is that mathematical laws of construction or of harmony in colouring will not serve without genius to apply them, any more than a knowledge of the laws of counterpoint will make a musician; but what the ancient Greek artists could not dispense with can certainly not be dismissed with the contempt of ignorance at the present day. Because we have not yet been able to unravel the laws which underlie art, and because the science of æsthetics is so far removed in our day from being a positive one, there is no reason to suppose, as so many do, that it lies outside the range of the exact sciences; and

every step which brings us nearer to the realisation of the hope which some hold, that the lost knowledge which Pythagoras taught may yet be regained, is to be hailed as positive gain.





II.

GOOD CONSTRUCTION DEPENDENT ON HARMONY OF PROPORTIONS.

CIENTIFIC composition of form," says Hay, "seems to be appreciated by an inherent feeling responsive to

certain mathematical principles of propriety and harmony existing in nature, and conveying an impression to the mind through the medium of the senses. . . . Proportion is, in short, that geometrical quality in forms and figures by which they are rendered pleasing to the sense."

"The natural appetite or taste of the human mind is for truth," says Sir Joshua Reynolds in his Seventh Discourse, "whether that truth results from the real agreement or equality of original ideas among themselves; from the agreement of the representation of any object with the thing represented, or from the correspondence of the several parts of any arrangement with each other. . . . All these have unalterable and fixed foundations in nature. . . . A picture that is unlike is false. Disproportionate ordonnance of parts is not right, because it cannot be true until it ceases to be a contradiction to assert that the parts have no relation to the whole."

In the same address he defines taste as being "that act of the mind by which we like or dislike, whatever be the subject," and says of art that "its foundations are laid in solid science." "We will take it for granted that reason is something invariable and fixed in the nature of things; and, without endeavouring to go back to an account of first principles, which for ever will elude our search, we will conclude that whatever goes

under the name of taste, which we can fairly bring under the dominion of reason, must be considered exempt from change."

Some apology would almost seem to be needed for stating what nowadays, when the word "art" is in every one's mouth, must seem platitudes, were it not that every day's experience shows us that those who talk most about art appear to have the vaguest ideas on what constitutes artistic construction or arrangement, and are the most strongly imbued with the idea that good taste is a special revelation from heaven to a few, that they, naturally, are among the "Elect" favoured by this divine inspiration, and that their "feeling," or some one else's "feeling," is to be accepted as art. "Feeling" is a very good thing in its way, and if we could only obtain the aggregate feeling of educated people of all ages on a subject of art, it would undoubtedly be correct. But the mere "feeling" of individuals, constantly liable to be crushed and confused by a too close

proximity of time or space, or by the familiarity with a prevailing fashion, which for a time usurps the place of true taste, is not to be relied upon unless it can show a reason for the faith which is in it.

Nowhere is this more evident than in dress, which is always practically under the control of the fashionable dressmaker and tailor, whose interest it is to keep up such a constant change that garments shall be perpetually waxing old-fashioned and outré, and the wearers shall be always buying new ones, or appear singular.

Still, in the new craze or hobby for everything that is or seems artistic, there are people who wish to dress—if they would only call it by its right name—in a reasonable or common-sense fashion, not dependent on the vagaries of a Parisian in search of novelty. They are willing to be a little different from the common herd. And but too often they succeed in this only by being ugly, and almost as far removed from what is artistic as the

wearers of swinging birdcages and boots into which no naturally shaped foot could enter.

Constructive art, in whatever manifestation we regard it, requires, first of all, fitness, or reasonableness, as some writers prefer to call it; next, a due proportion and relation of all the parts to the whole; thirdly, grace, or the due combination of the straight and the curved line. It may be summed up as a true harmony of each part with the others and with the whole, in construction and in decoration, and a due observance of its fitness to fulfil the duties required of it in the most perfect manner.

In these days of ridiculous affectation we are not unaccustomed to hear of the "artfeeling" in the leg of a chair. The leg of a chair has a certain proportion of weight to carry; it is required not to break off when somebody sits down. It therefore requires for "art-feeling" to be in due proportion to the size of the chair it supports, to be constructed

so that the weight it carries shall be distributed in the most scientific way over all its parts. Any ornament it may possess must be "construction ornamented, not ornament constructed." It must be true—that is, of sound material and perfectly finished—even in the portion not necessarily presented to the eye. Then, and then only, will it be what is called in the jargon of to-day "art-furniture."

The rules of art being based on strictly scientific principles, it is impossible to speak of any one form of constructive art without using the terms common to all others. In speaking of artistic dress, it is natural to use architectural rules, which are equally applicable to this form of construction.

We may, therefore, state clearly certain rules known and used in architecture, and apply them to the construction of dress.

1. Dress, like architecture, being based on practical requirements, can only be true and logical, and therefore artistic, when it expresses those requirements.

- 2. The external arrangement and design of dress should arise out of and indicate the figure and its requirements. Nothing can be artistic which impedes the free and graceful action of the limbs.
- 3. Ornament should be applied to emphasise the construction, or to finish off the individual parts. It must never show a want of meaning, or appear as a mere adjunct. To repeat Owen Jones's words, it must always be "construction-decorated, never decoration-constructed."
- 4. The material chosen for dress must always be that most fitted for the needs of the wearer, the climate, and the time of year, and must be, above all things, reasonable or suitable for the purpose it is intended to fulfil.
- 5. "Beauty of form is produced by lines growing out one from another in gradual undulations. There are no excrescences; nothing could be removed and leave the form equally good or better."

6. "All junctions of curved lines with curved, or of curved lines with straight, should be tangential to each other;" and "the straight, the inclined, and the curved should be properly balanced."

To pass more particularly to dress, we may say that dress must always be best and most beautiful which follows the lines of the human figure; for this is, when perfectly proportioned, the most beautiful combination of lines and curves known.

A beautiful woman's figure cannot be improved on by art. The dress, therefore, which allows its natural proportion to appear as far as is practical, and which does not impede in any degree the natural freedom and grace of movement, is the most artistic and becoming. An imperfect figure may be improved by the manner in which ornament or drapery is applied to the dress.

Ornament may be of two kinds. Either a part of the dress, as trimming, forming a finish to individual parts, or something added to it for the sake of introducing harmony of colour.

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In either case it should show that it is a part of the whole, and that it fulfils some actual requirement. For instance, a bow of ribbon is often used for the purpose of introducing colour. It should always be a finishing or tying of some portion of the dress, not a made-up bow stuck on.

Drapery added to the dress should always carry the idea of being a necessary portion of it—part of the dress draped, in fact, not a curtain or an apron hung on and caught up, without meaning, here and there. It should also give the sense of security in its position, and not appear to depend on stitches.

Ornament should always follow the line of construction.

Seeing that clothing is needed first of all for warmth or protection from the elements, and that it should impede as little as possible free and graceful movement of the limbs, it is evident that to be comfortable (that is, simply fitted for its requirements) it should be as light as possible. This is, of course, more difficult to achieve in winter, when greater warmth is required of our clothing, than in summer.

All garments that are heavy, and cause the wearer inconvenience through having to drag about a weight, are inartistic, because unfitted for their purpose.

All dress that pinions the arms or impedes their free movement is inartistic, for the same reason.

All head-coverings which do not cover the head, but are perched on it at an angle and fastened by pins, are inartistic, for the same reason. Bonnets or hats are intended to protect the head, either from cold or wet or the too direct rays of the sun. When they are worn on the back of the neck, leaving the front of the head exposed, or when they are in the shape of a wind-sail directing the wind on to the top of the head, which is its most delicate part, they are inartistic, because totally unfitted for their purpose.

In the same manner nature has constructed feet in the way that renders them most perfectly fitted to the work they have to perform. Shoes and boots are intended to cover and protect them, but not to improve nature by contorting the foot into a wholly different shape, and squeezing it in a mould into this form. When this is done the foot becomes deformed and unsuited to the purpose for which it was made; the ankle becomes frightfully thickened owing to the proper balance of the body being destroyed, and ugliness and unfitness is the result. If a foot is of good proportions, and naturally pretty, the shoemaker cannot improve by distorting it. If it is not naturally well made it cannot be improved by throwing the figure off its balance and further disfiguring its proportion.

Taking the human figure, therefore, as the groundwork of dress, it is of the first importance to preserve its proportions if they be correct.

To do this, a dress which fits more or less

closely to the figure, and reaches to the feet in front, with plain sleeves indicating the shape of the arm, should be the basis and foundation of all dress.

As in adding clothing to the figure we have widened it to a certain extent in proportion to its height, the proportional length may be restored by making the dress longer behind—where it does not interfere with the movement of walking—so long as the length is not so great as to make the lines of the drapery lose their graceful flow and become abruptly bent, or to be out of proportion to the height of the figure.

Again, a certain amount of ornament or addition to the sleeve is permissible, so long as it is in strict accordance with the natural shape of the arm, and does not disturb its proportions, but allows them to appear. Outdoor garments are, especially in winter, intended to provide warmth and to give the idea of comfort. They must, in order to be artistic, clothe the body, without interfering

with its actions. It is not necessary to have them with close-fitting sleeves and long skirts, though these are without doubt the most graceful and becoming mantles at all times. For elderly people or those preferring something to wrap themselves in warmly, there are many modifications of mantles which perfectly follow the lines of the figure and which do not pinion the arms.

The headdress—bonnet or hat—should restore the correct proportion of the body by its height and width.

In speaking of a closely fitting plain dress being the basis of all costume, it is not intended that every one should dress themselves in this garment and no other. As much variety may be made upon this basis as any change of fashions could require, but as long as the central principle is not lost sight of each fresh costume would be equally charming.

For instance, it may be made up to the throat, or cut square or V-shaped in the

bodice; the sleeves may be slashed, or tied to the upper part of the arm over some decorative material slightly fulled, or may be stopped at the elbow and finished with falling lace. An over-robe draped, or open in front and with a train, may be added. Any of these arrangements, if carried out with a careful attention to true proportions, will indicate the natural figure and clothe it fittingly and gracefully.

And here we may say something about walking dress. Convenience requires that this shall be of a moderate length. No one can walk about out of doors with a trailing skirt, however well it may look in the house.

The effect of a dress draped is practically the same to the eye as a long one. That is to say, there is all the difference in the world between a plain short skirt stopping at the ankles, or shortly below them, and a dress which gives the idea that it is looped up for convenience and can be let down if needed. This is practically the theory of draped skirts, and the reason why they are more pleasing than short plain dresses.

If, however, a short skirt is worn for walking, and it is more convenient to have it made so on account of the weight, it should be as closely fitting as is possible, so as not to throw out the proportions of the figure by widening it more than can be helped. The hat may be used to restore the proportion by being a little high in the crown or trimming.

A few references to current costume will illustrate the fact that what is artistic always retains its hold on the public; and good forms of dress, because they are becoming, are favourites, and constantly return. No dress remained in fashion longer or returns oftener than the princess robe, which exactly follows out artistic rules. Even now, though they are not in fashion, a lady may wear one anywhere without looking strange, whereas in a few years' time one of the present hooped dresses, or those with huge swinging excres-

cences behind, will look vulgar to the last degree. What are known as polonaises—a simple over-dress, with body and skirt in one—never have quite gone out; and the present Newmarket, or the long velvet jackets trimmed with fur, have, under the name of pelisses, or some other variation, been the dress of Englishwomen for generations back. In the same manner, the dress opening in front over a petticoat of some rich material or embroidery, and either draped behind or falling in a sweeping train, is never long absent from our drawing-rooms.

Again, the short plain skirt with a dress draped over it; how often has it come into fashion, and how familiar we are with it in the pictures of our best artists of all periods—sometimes with a handkerchief or lace simply crossed over the breast, or with a bodice laced across in front.

Perhaps the best training that any person can have who would make artistic dress his study would be to look carefully over the fashion-plates of all times, which have been so carefully collected by the industry of the curious in such matters. With no glamour of familiarity about them, how uncouth, how purely hideous, do the extravagances of other times appear. It is easy at once to point out their want of proportion, want of fitness, want of grace of every kind; and yet whenever any of these outrageous fashions come back, they are followed by hundreds, who come at last to think them pleasing.

In the same manner a careful study of the historical costumes of all times and countries will quickly show us that those which all can agree, at this distance of time, in calling beautiful, are those which conform to the rules of art which we have already quoted.

If a hundred people of any educated taste were to copy from the collection of ancient costumes those which struck them as most beautiful, they would doubtless prove to be the same, and to be more or less in accordance with the laws of correct construction.



III.

ARTISTIC DRESSING OF IMPERFECT FIGURES.

O far, we have considered only those figures which nature has blessed with beautiful proportions. We have sup-

posed the head and limbs to be perfectly formed, and in the best possible relation to the rest of the body. There is no difficulty about dressing such a figure, and as a rule, a woman who is so gifted knows it, and is not fond of concealing her beauty by excrescent decoration.

Artistic dressing concerns much more those whose figures are imperfect, and who, if they

wish to dress becomingly, must try to restore the proportions which nature points out as beautiful.

The question of beauty in the female form is apparently a vexed one. We are always confronted with the Venus of Milo, and the ordinary woman rebels against this, and says the Venus of Milo has a dreadfully thick waist, and she is glad she is not like it. There is some reason in this, for however beautiful the proportions of the statue may be as an ideal woman of the type of Venus, it is not to be applied as a test to young girls; and there is besides that the fact that the position in which the statue is represented is one in which the waist would appear the thickest.

There is not so much divergence of taste as appears, however. No one with any pretension to knowledge of proportion defends or admires the tightened and wasplike figures of the French dressmakers' ideal of beauty. Many young women are naturally very slight

and thin in the waist, without ever having been compressed, and if they do not exaggerate this conformation it has great grace about it. It is when stiffened with steel and drawn into a small round ring that the waist appears unnatural and out of proportion to the rest of the figure.

As a rule, even a woman whose figure is not very well proportioned has grace and a certain amount of beauty when not disfigured by outward clothing. That is to say, when a woman who is what we are accustomed to call clumsily made lets herself alone, and wears a dress which really follows the line of her natural figure, she looks infinitely less distorted and out of proportion than when she tries to make her body appear like a wine-glass, with the effect of exaggerating her hips by making them stand out like two shelves.

We must suppose, therefore, that the woman who wishes to dress artistically does not begin by distorting herself. She leaves her figure as nature made it, whether perfect or imperfect. And to do this a dress fitting to the figure, body and skirt in one, is the only one that can be suitable. It does not follow that the dress is to be limp, and wrinkling with every movement: compression and distortion is all that is to be avoided.

Where a figure is imperfect, the dress should be modified so as to restore as far as possible the proportions intended by nature.

If the shoulders are too narrow for the height or slope too much, giving an idea of weakness instead of grace, height and width may be given to the shoulders by puffs at the top of the sleeves; or by raising the sleeves with a roll or puff at the top, if height only is needed.

If the neck is too long and out of proportion, a high collar may be worn with very good effect.

If the arms are too thin, or too long in proportion to the figure, the effect may be a good deal modified by sleeves slashed or • made with deep puffs above the elbow.

Too thin a figure may be improved by carefully arranged drapery; or in some very deficient figures by a bodice pleated or smocked in front, or by folded material the same as the dress, or a relief to it.

Unless a figure is deficient in proportion all these contrivances only serve to distort it, and yet it is surprising to see how women will wear high-padded sleeves, or with huge hanging puffs to them; or a bodice thickly pleated into a saddle, when they are already too broad in proportion to their height, or too well proportioned to need it. Let all such additions be looked upon as rendered necessary by a defective conformation only, and not blindly adopted by those who do not need them.

When the figure is too stout the dress should be as long as possible, and when worn short for walking should be draped at the back, but kept as flat as possible at the side. The lines of the ornament must all flow downwards, never by any means across

the figure. The more the waist is compressed and the more tightly the dress appears to fit, the more will the stoutness be revealed.

No dress is artistic which cuts the figure in two, either by colouring or by trimming. A conspicuous trimming round the hips would spoil even the most beautiful figure, but is disastrous on a stout or imperfect one. The same may be said of bands or flounces going round the skirt or across the front, and of bodies of a different colour from the skirt.

That material is best which receives and reflects the light from its surface softly, producing many gradations of tone. It should be one also which hangs in graceful folds. No material is pleasing which stands stiffly out and forms inharmonious angles, or catches bright points of light.

Neither should it be trailing or flimsy, getting into a wisp. Where a material is beautiful in itself, but too thin to drape alone, it should be used in conjunction with some

other to give it substance, or should be fulled on to some steadier fabric.

The line of a dress may be broken with good effect either by fulled lace or pleated material. If the latter, some soft trimming, like lace, should fall over it. A pleated edge to a dress is frequently useful to give it sufficient solidity to hang in graceful folds. It should never be allowed to stiffen it into angular ones.

An embroidered border or flat trimming laid on is most suitable for drapery when it needs a finish.

Embroidered or other trimming on dress must always be purely conventional in type; no representation of natural objects in relief.

The mixture of two materials will generally be found most pleasing, as giving variety and avoiding weight in dress.

As we should avoid all excrescent ornament, so we should have nothing flying or hanging loosely about. If ribbons are required to tie something together, the ends

should be long enough to do so effectively, but not to leave streamers to fly about in the wind. Castellated and all kinds of loose flapping trimmings are unsuitable, fulfil no reasonable purpose, and distract and annoy the eye. Fringes, originally the ravelling out and tying of the end of material, can only hang truly in one position, and are out of character on sleeves or other portions of the dress where they must necessarily get turned upside down.

To sum up, therefore, the requirements of artistic dress, the purpose for which it is required must first be taken into account. If for walking, climbing mountains, driving, yachting, or any active outdoor exercise, it needs to be light, sufficiently warm, and strong. In construction it must be as simple as possible, leaving the limbs unimpeded in action, and having no useless extraneous ornaments. The hat should cover the head, and if for rough work should be one which obviously will not become draggled and

spoiled by wet. Ostrich feathers or plush trimmings are wholly unfitted for this kind of dress. For town use a walking dress allows richer materials and decorations.

Again, for a carriage a still more luxurious style of dress is becoming; and for the house, whether for morning or evening, a wholly different dress may be suitably worn. Long dresses are invariably more becoming, for the reasons we have given, and are much warmer and more comfortable, especially in winter. Whether long or short, however, the proportions of the figure should be the ruling idea in the construction of the dress.

In draping the dress, or in arranging the fit of the skirt, all abrupt angles and meaning-less excrescences following the Hottentot ideal of beauty should be avoided. To avoid the disagreeable flapping in of the petticoats against the heels, some extra fulness of the skirt is required behind, but the difficulty may be perfectly overcome without breaking the line of beauty in the drapery.

In the same manner abrupt excrescences on the arms, in the shape of puffs and bulging slashings, are to be avoided. When so used as simply to emphasise the configuration of a beautiful arm, or to conceal the imperfections of a distorted or imperfect one, these may be pleasing, but under no other circumstances.

The shape of the head and face must always be taken into account in choosing the bonnet or hat. The small close-fitting bonnet so long a favourite is eminently artistic, because entirely fitted to its purpose, but it is not universally becoming. Modifications in the trimming will do all that is needed for those who require more height or width on the head.

It must be remembered that wide-brimmed hats dwarf the figure, and can only be consistently worn by tall women. The trimming or construction of a hat or bonnet should give the idea of being borne by the head, just as any other weight would be borne. All unnatural bulging in one place and denuding

of another, as we have seen in some of the recent hats, which form a straight line with the back of the neck and have enormously heavy bunches of trimming hanging above or in front of the forehead, give the sense of something improperly supported and only kept in its place by pins. The balance must always be studied in placing the trimmings, and the shape of the head and position of the neck which supports it must be considered.

Before going on to the question of the selection of colours in dress, we would say a word about the dressing of the hair and one or two other matters.

It is woman's province to be beautiful, and her duty, if nature has not gifted her with personal beauty, at least to see that she looks her best at all times, and does not make herself less attractive than nature has done. It is, fortunately, not necessary to be beautiful to be beloved or to be a general favourite. There are beauties of mind or beauties of

manner which, as we all know, outbalance any mere personal charms divorced from these; but it is especially incumbent on plain women to avoid making themselves plainer, and they need to study their appearance much more carefully than the beautiful woman, whom everything suits.

Foremost among means of disfigurement come the ways of doing the hair.

There were very few women whom the style of dressing the hair in a knot at the back of the head did not suit, for most women's heads are prettily shaped, and when that is the case the less its shape is disguised the better.

Some, however, have heads obviously too small in proportion to their bodies. Sometimes they are too narrow or too wide. In all these cases the object to be aimed at is to restore the proportion. It may be done by wearing the hair over cushions at the sides or the top, by curling and crimping it, and if this is not carried to excess so as to look

artificial it will have all the desired effect, and be pleasing at the same time.

Every woman ought to study her profile with regard to the dressing of her hair. If she has a turned-up nose, she may rest assured that she makes it much more pronounced by wearing her hair brushed straight up from the nape of her neck and with a curled toupé overhanging her forehead, just as she will make her nose apparently turn up much more if she wears a hat tilted over her forehead, the brim or edge forming a parallel line with her nose. There are very few women whose heads or features will bear the present style of denuding the back of the head, where the hair naturally grows thickest, and piling it on the top, where it can only be kept in its place by many pins. To some it is becoming, where the back of the neck is very thick, or where the back of the head protrudes unnaturally.

Nature has arranged the hair generally to grow in the way which is most becoming to the face. When the hair is brushed back on the temples it forms a broken line, which melts gradually into the tones of the complexion. When the hair is brushed down in a hard line, as was sometime the fashion, it is always unbecoming to the face, most so when the hair is dark.

Nature frequently has a quantity of short fluffy hair growing close to the face. This always makes a pleasing and softened line. But it has been exaggerated by cutting the front hair and curling it up into hard little knots, or wearing a large overhanging and tangled fuzz, which is not becoming to any face. Where the curling or frizzing is not formal, and resembles nature, it is often becoming. A hard ridge of dark hair cut across the forehead, and falling over it like the teeth of a comb, was never becoming to any one.

Children's hair, which is generally fair and very fine and soft, looks well occasionally cut straight across the forehead, but it is very rarely that a child would not look much prettier if its hair were allowed to grow naturally, especially as children's hair will generally curl or wave from being so often wetted. In grown-up people the straight fringe across the forehead was always ridiculous, except when it was worn so to conceal the defect of a forehead out of all proportion to the rest of the features.

There is, perhaps, nothing so entirely disfiguring as spectacles. The awkward way that they catch the light and make the wearer look eyeless, is known to all those who are fortunate enough to be exempt from these disagreeable adjuncts. It is difficult to understand, however, why people who are obliged by actual defective vision to resort to them should unnecessarily disfigure themselves by wearing rectangular or large round glasses, the eye, which they surround, being elliptical in form. The latter fashion is due to a present fad of the oculists, which will most probably be a passing fashion, like so many others; but rectangular spectacles would appear to have no reasonable existence. *Pince-nez*, where they can be worn, are much less disfiguring, partly from the idea which they give of not being permanent, and also because they do not catch the light in the same manner as spectacles, from being placed at an angle with the eye.

The art of dressing artistically, therefore, is not, as some people seem to suppose, the wearing of antique Greek costume in the cold and damp of an English climate; being encumbered with loose drapery, however beautiful, in an age whose ruling characteristic is the need of being unencumbered; nor does it consist in making a copy of historical dress of other ages, or that which has become historical in the pictures of our great artists. Still less is it the introduction of humps and puffs where they are not needed and do not add to the beauty of the figure, nor in wearing limp and trailing garments, remarkable only as being different from the prevailing fashion, but having no grace or beauty in themselves.

These things, dear to an era in dress now happily passing away—fairly laughed off the field—are the mere shibboleths of a narrow clique, and were always as vulgar, because as ignorant and pretentious, as the gaudy "warpaint" of the Philistines so often sneered at.

Artistic taste is not a matter of special revelation to a few: it is founded on purely scientific laws of harmony, whether as regards construction, material, or colouring, and it may be cultivated by any person having ordinary intelligence.

The exquisite folds of the Greek himation depend for their beauty on a certain well-known proportion of the garment itself. Less, or more, or different proportions alter it and spoil its beauty. We may be quite certain that artistic draping of all kinds equally depends on the true proportions of the garment to be draped.

Art requires above all things absolute truth, as Sir Joshua Reynolds was so fond of pointing out; no sham or false appearance is permitted. Imitation drapery will always look what it is, a sham, and can never be utuly artistic.

A long dress draped over a short peninout for walking will always be more graceful than one made short and with an imitation drapery. It is supposed by some to be impressible to drape a long dress satisfactorily for walking but there is no real difficulty—a Frenchwoman can always do it.

Perhaps something should be said about the new craze for what is called rational dress, the present outcome of which is one more effort to introduce among women some modified form of the attire which we at present leave to men. In one form or another it is a very old story. Bloomerism had its day among an enthusiastic few, just as "divided skirts" will have or have had their day, and are doomed to disappear amongst the other symptoms of a restless and leverish age always seeking some new excitement to make the time pass. The feeling of English-

women—one might almost say of civilised women—of all ages has been against this form of dress, and there is no more likelihood of such a revolution in taste now than at any other time when a few seekers of notoriety have preached crusades against petticoats.

A truly rational dress would certainly be artistic, since art requires, as we know, fitness before all things; but it requires also due proportions and grace, neither of which are to be found in the present suggestions of the Rational Dress Society: nor has even the fitness to needs been hitherto discovered in the very outré costumes designed as suggestions for the dress of the future. Beneath all the extravagant nonsense preached on this subject lies many a germ of truth, and she who grasps the true meaning of art will be able to winnow the chaff from the grain, and adopt just so much of the suggested reform as has any basis in principle.

A true and self-reliant individuality in dress, based upon real art rules, will produce

a costume at once suited and becoming to the wearer. Because it suits one person to wear her hair massed on the top of her head, there is no reason why every one for a term of so many months or years should drag their hair up by main force from the back of the neck. Nor because a simple knot behind and the hair smoothly brushed back suits a beautifully shaped head, should those who are not so gifted by nature imitate it.

It has often been said that dress indicates the character more than any other external sign. A lady who dresses as her French dressmaker dictates, without any exercise of individual taste, is never well dressed except in the sense in which the dummies in the milliners' windows may be said to be dressed. Her clothes may be well made and in the fashion; but having said that one has said all.

Among lovers of what is called artistic dress there is a great admiration for drapery hanging from the shoulders, and one is con-

stantly being told of the beauty of the Sacque dress, the Watteau, or the Pompadour. It may be beautiful, or the reverse. If the former, it is because the lines of the drapery are in true proportions to the figure it clothes—"the beauty is produced by lines growing out one from another in gradual undulations," without excrescences, "and because the junction of the curved lines with straight are tangential to each other, the straight, the inclined, and the curved being properly balanced." Unless this is the case, what is known as a Watteau dress is simply ugly, and not a few that are seen about have neither grace nor anything else to recommend them. There is no reason why beautiful lines should spring from the shoulder exclusively, though when they do so there is certainly a greater charm about them.

Neither is there anything beautiful in themselves in stuffed paddings and slashes. They may be made picturesque where there are defects to hide, and in some cases have a distinctly pleasing effect. Within the limits of art there is abundant scope for the exercise of individual taste, and the more individual it is the better. Many people have a marked dislike for certain colours and forms, probably the result of unconscious associations; to all some combinations are more pleasing than others. Let all these idiosyncrasies have their fullest licence so long as they keep within the limits of art; but do not imagine that "affected oddness," to quote Webster's definition once more, is artistic, when it has no beauty of form or colour to recommend it.

Harmonious or artistic dress cannot be compassed without careful study of the figure and complexion and hair of each individual. The latter brings us into the question of colouring, which will be treated in the following chapters; but when the broad principles of art are mastered, it becomes as natural to apply them to the costume of everyday wear as it was formerly natural to have no scheme whatever in the arrangement, but to

thoughtlessly adopt whatever struck one as pleasing in some one else, probably of totally different form or figure. Whether the object to be gained was to be "in the fashion," or to be what was supposed to be "quaint" or "æsthetic," this hap-hazard costume must always have failed of being either beautiful or suitable to the wearer.

There should be nothing hap-hazard about it; the dress should be individual if it is to be beautiful. It should take thought, and every part of it should be considered as a portion of the whole. Gloves, fans, jewellery, all that carries colour, comes into the scheme of colouring, just as the shape and mode of wearing the hat or bonnet is a part of the general proportion and balance of the whole figure. If carefully carried out there will be no appearance of art about it, only a general sense of repose and satisfaction to the onlooker.

In pointing out the rules of art which must be studied before any such thing as

artistic dressing is possible, however, we may refer to Sir Joshua Reynolds's teaching as an authority for saying, that while the observance of rules cannot be too strict until the education of an artist may be said to be complete, a certain amount of freedom must be permitted and encouraged in the thoroughly educated—an occasional wellconsidered breaking through the trammels in individual cases, which will give relief from a too consistent following of law, and which may lead to the discovery of further developments of art. This can, of course, only take place in details, the fundamental principles of fitness, proportion, and grace being invariably observed.





IV.

COLOUR IN DYED FABRICS.*

LMOST all the writers on colour have addressed themselves to the practical workers with pigments, either as dyers or painters. They have entered more

* To guard against misconception it is, perhaps, as well to say that, in drawing up the accompanying rules for the harmonious use of colours in dyed fabrics, I have carefully avoided referring to the works of the most modern scientific colourists, whose labours are devoted to the nature of coloured rays and of the production of colour by light, because they would only throw into absolutely hopeless confusion the small amount of certainty the practical user of coloured fabrics has as a guide to harmonious combinations. The announcement that green is a primary colour and blue a mixed one, that the combination of blue and yellow produces white and not green is, no doubt, true of coloured rays, and of their mixture in the eye by the chromoscope; but the fact remains that to the painter and practical worker with pigments, blue, red, and yellow are the basis of all the combinations possible, or the simplest expression, as I have

or less learnedly into the question of what is colour, and have discoursed on the reflection and refraction of light, the nature of the solar spectrum, and other kindred subjects. Passing to practical directions, they have spoken of the production of colours by the proportional mixture of various pigments, and of the nature of paints, dyes, and stains.

To the dyer or painter nothing can be more appropriate; but the consideration of the application of colour to personal clothing or decoration requires us to deal with fabrics already dyed, and it is with these only that we have at present to do.

It is only, therefore, with a view of obtaining a clear idea of colours as we are accus-

called them. Taking into account the changes effected in the power of the eye itself by the constant vision of one colour for a length of time; the power also which the eye has of retaining one impression while another is going on at the same time, it is possible that some of the phenomena observed in the chromoscope are due to what one of the most careful investigators called a "botheration of the eye;" and in any case, in the present almost chaotic condition of the science of colour, can be of no use to the practical user of manufactured colours, although the chromoscope has been most valuable in determining complementary hues.

tomed to see them and to use them every day that we go into the question of their nature, and of the constituents of those which are composed by the combinations of two or more other hues.

It is now practically agreed that colours, as distinguished from coloured light, when reduced to their simplest expression, are three in number, and that from the combination of these in varying proportions all other colours, hues, or tints are produced. These are called the primaries, and are, as every one knows, vellow, red, and blue. Their numerical proportional power is stated by Field to be as follows:—yellow, 3; red, 5; blue, 8. "When these three colours are reflected from any opaque body in these proportions white is produced, each being neutralised by the relative effect the others have on it. they are absorbed in the same proportions black is the result."

Whether this statement is scientifically correct or not as to the proportions does not

affect our subject at all; all are agreed that the negation of colour is white, and that the absorption of all colour produces what we know as black.

From the simple combination of the primaries secondary colours arise.

Yellow and red mixed together produce orange
Blue and red " " " purple
Blue and yellow " " green

Both Field and Hay agree in stating that the correct proportions for the secondaries are these:—

- 3 yellow and 5 red = orange
- 5 red and 8 blue = purple
- 3 yellow and 8 blue = green

Other writers consider the equal mixture of two of the primaries to produce the secondaries, and there appears to be no special reason for adopting Field's proportions. At best we can but allow that these proportions, or others which may be agreed on, produce what we may call a standard orange, a standard green, and a standard purple.

The mixture of the three primaries in equal proportions produces a perfectly colourless grey, or the mean between black and white. This grey is best realised to the eye by close lines of black upon a white ground, as in an engraving.

Here, however, at once begin the difficulties of colours. No pigment known is an absolutely pure primary, nor is it possible in the present state of science to produce a perfectly pure colour.

A perfectly pure red is one without the slightest admixture of either yellow or blue; a pure blue, one which is entirely free from red or yellow; and the ideally pure yellow, one in which is no tint of red or blue.

Ideal colours they must, however, for the present remain, and if, for the sake of argument, it is necessary to agree to call some three pigments pure colours, it can only be done by fixing upon one as being as near

purity as possible, and agreeing to call those other two pigments pure by the equal mixture of which with the third a perfectly neutral grey is obtained.

Bearing in mind, therefore, that in speaking of "pure" primary colours we mean only comparatively pure, or such as colourists may agree upon as standards, we have to deal with seven colours in all: pure yellow, pure red, pure blue, standard orange, standard purple, standard green, and the neutral grey produced by the mixture of the three primaries in equal proportions.

Each of the primaries has what is called its complementary colour, and that colour is in all cases the secondary formed by the combination of the other two primaries in equal proportions. Thus, red has for its complementary, green, which is formed by the mixture of yellow and blue. Yellow has for its complementary, purple, or the mixture of red and blue. While the complementary of blue is the result of the other two primaries,

orange, or red and yellow in combination. It is necessary to get this clearly into one's mind, because, although every colour and hue has its complementary also, the complementaries of broken hues are extremely difficult to determine, and it is useless to try to describe them in words, since no names or standards are agreed on by colourists. In fact, however, the complementary of any colour or hue whatever is the result of that mixture of the primaries which when combined with it would produce neutral grey.

To repeat, once more, for the sake of absolute clearness, the complementary of a colour is the result of the mixture of the other two primaries, where it is itself a simple primary; or of the remaining primary of the triad, if it is a simple secondary; and if it be itself a tertiary, containing some proportion of all the three primaries, its complementary will be a hue containing that exact balance of the primaries which would be required to form a neutral grey if combined with it.

For the sake of argument we may imagine a neutral grey consisting of 20 parts of each of the three primaries. We take 20 parts of red as a starting-point, and we shall then require 20 parts of blue and 20 parts of yellow to make the green which is its complementary.

But supposing a combination of 20 parts of red plus 10 of blue—that is, a crimson, or bluish red—we shall require 20 parts of yellow, but only 10 of blue in the green which will form its complementary: which is the same thing as saying that a yellow green is the complementary of a blue red. The same holds good with tertiary hues or broken colours. We suppose a broken green consisting of 10 parts blue, 8 parts of yellow, and 2 parts red; to obtain its complementary we require a hue of red containing 2 parts of yellow to restore the balance.

The writers on colour seem all to have agreed to call a "hue" the variation in tint produced by the mixture of two colours other than the mixture of the two primaries which produce the secondary standard colours, green, purple, and orange. There may therefore be hues of bluish green, as well as bluish red, or of yellow green, as well as of yellowish red or yellowish blue.

There may, of course, also be hues of grey, owing to the predominance of either blue, or red, or yellow in it.

All writers also seem agreed in using the word shade to denote the deepening of colour in the scale by mixing it with black, and almost all use "tone" to denote the lightening of the colour by dilution.

Here, however, come in once more the difficulties of experimenting practically. It is known that neither by laying one colour over another in successive degrees, nor by adding sheets of coloured glass one to another, nor by dilution with a colourless fluid, can an exact ascending scale of pure colour be obtained. Even in attempting to make an ascending scale from what Chevreul

calls the normal condition of a colour to white, by simple dilution in fixed gradations, its hue changes, and any scale constructed must be corrected by the eye.

We have, however, fortunately nothing to do with these difficulties. We do not ask the dyer how he obtained his graduated tones or shades; we accept them for use as he presents them to us, and are thankful when we find them fairly correct.

By a scale of colour is meant a graduated ascent from dark to light, and it would be a great accommodation to the practical worker with embroidery silks if an agreed-on gradation of tones could be produced and kept to. There is here, again, a difficulty. Yellow being the colour most allied to white, is capable of many more tones than blue, which is most allied to darkness, or to black; and any hue which is the result of a mixture with yellow as one of its constituents may be wrought into a much more extended scale than purple, which is the mixture of red and blue only.

To return for a moment to the primaries. It is well known that the complementary of any one of the primaries is seen naturally by the eye. When looking steadily for a time at a round spot of primary colour placed on a white or black ground, it will presently appear to be surrounded by a ring of another colour, which is its complementary, or, as we have already seen, the result of the combination of the other two primaries—red being surrounded by green, blue by orange, and yellow by purple.

The curious analogy between the science of music and that of colour has been frequently pointed out, and Hay was so much struck by it when he first began the study of colour that he imagined it would be easy to teach one science, to a certain extent, through the other. A tendency to trace too close an analogy is, in the present condition of the science, apt to lead to errors and to become mere hobby-riding; but it is almost impossible to write of colours and of what has been

discovered of the laws of their artistic use without adopting the nomenclature of the better-known science.

In employing musical terms, therefore, it must be understood that it is done only as rendering the matter easier of explanation, without for a moment implying that the actual conditions are the same.

One chief difference is that whereas in music a fixed gradation of notes in the scale has been agreed on, although it is not mathematically correct, there is no such scale in colours; and the difficulties in dealing with tones of colour are infinitely greater than with tones of sound, which can be measured by the number of vibrations; no measurement of colour being possible at present. Colour depends also upon so many more contingencies than sound. There is not only the power of the eye in judging, but the constant variation of colour under the change of lights, and of the nature of the surface from which it is reflected. It is known to every one that

the same colour applied to a woollen and a silken fabric appears perfectly dissimilar.

Despite all the difficulties and uncertainties which underlie the science of colour, it is interesting to notice certain facts which have led so many writers on colours to go to music for enlightenment. It is a perfectly well known fact in acoustics that when any given note is sounded on a musical instrument, it is always accompanied or immediately succeeded by two other tones, and that these are always the two notes of the triad which form the tonic chord in music, namely, the third and fifth ascending tones, with the octave. In other words, a vibrating musical string gives out a certain sound or note. Immediately after it begins to vibrate it divides its vibration into two, and a second note is heard; it goes on dividing itself into onethird, and a third tone is heard, and further into one-fifth, when the fourth tone is heard.

This can be tested by striking one note on a grand piano with the pedal down several times

in succession, and then listening as the sound dies away; the overtone, or dominant fifth, can always be distinctly heard, if not the others.

A string of any length set vibrating produces a sound which depends on its length; divided into two, and one-half made mute, the octave of the first tone is heard; divided into three, and one-third rendered mute, the note produced will be the fifth of the first note. Dividing the string into five, and rendering mute one-fifth of the whole, produces a tone which is the third in ascent from the original note.

The simultaneous sounding of these notes forms what in music is known as the tonic chord; and by the inversion of this chord, or transposing of its notes, and of that of the dominant and sub-dominant, all the variations of harmony are produced.

Nature thus has herself given us the key to her system of harmony. She allows us actually to see the colours and actually to hear the tones which are the groundwork of all harmony. It is no mere ingenious fancy, therefore, or trick of the imagination which leads one to the conclusion that there is an absolute law underlying both these sciences and probably all others.

The Analogy which Pythagoras taught the Greeks was applied by them to architecture, painting, sculpture, music, and all other sciences and arts, and was the cause of their pre-eminence over all other nations in art. It is also said to have been the discovery by Michael Angelo of the secret of the ancients in proportion that caused his pre-eminence.

Hay laboured hard in the effort to discover once more this secret which all writers of any weight agree in thinking would give the exact laws of art in all its branches. Leaving, however, to those who undertake the subject scientifically the further reading of this mystery, we only here attempt to apply such laws as are known, and in doing so must use the terms which are most easily understood by the many.



V.

COMBINATION OF COLOURS.



N speaking of colours so far, we have mentioned seven, including the neutral grey, or combination of the three

primaries in equal proportions.

It will be best to consider these alone as colours, and to call all others hues, which, as we have seen, is universally agreed to mean the mixture of colours with others, whereby they are altered in appearance.

Field and others have pointed out that in the mixture of the three primaries in uneven quantities they have a constant tendency to neutralise each other. The proportions they give, as already quoted, are yellow 3, red 5, and blue 8, to become perfectly neutralised in black.

The same proportion, according to Owen Jones, when observed in decoration with the three primaries—even when the strongest pigments are used—produces what he describes as a "beautiful neutralised bloom."

We shall refer to the description of what are known as tertiary hues, given by most writers on colour, although they are confusing, and of little practical value, as no standards are agreed on.

The accompanying table will show us that, according to these writers, russet is the union of orange and purple, olive the result of a mixture of purple and green, and what they seem agreed to call citrine, of green and orange.

Yellow Red Blue Yellow
Orange Purple Green Orange
Russet Olive Citrine Russet
Marone Brown Slate*

Called by some writers also brown,

This is practically the same thing as saying that the three tertiaries are the result of the mixture of the three primaries in uneven proportions, as opposed to their even mixture resulting in neutral grey.

Passing on to the next stage in the progress towards black, perfect uncertainty and confusion seems to reign; no two writers are agreed about what are sometimes called the quadrates. They give them as the mixture of russet and olive, olive and citrine, and citrine and russet; but they do not seem agreed at all as to what these mixtures produce. Field calls everything below a tertiary brown, and that is certainly the simplest way of describing the dark mixtures of colour. We know of marone, which has obviously red and blue in predominance over yellow: a red or orange brown, in which red and yellow predominate over blue; and an olive brown, in which blue and yellow predominate over red. What Hay calls slate is really a dark shade of a bluish hue of grey.

The simplest description of the colours with which we have to deal in dyed fabrics would seem to be—

Pure or standard colours—yellow, red, blue, orange, green, purple; hues of pure colour, as yellow reds and blue reds, red blues and yellow blues, blue yellows and red yellows; hues of secondaries, as blue greens and yellow greens, blue purples and red purples, yellow orange and red orange; and broken hues of all these—that is, when all three primaries are present to form the hue.

We have broken reds, containing both blue and yellow; broken blues, containing both yellow and red; broken yellows, containing both blue and red.

Again, broken greens, containing red, as well as blue and yellow; broken purples, containing yellow, as well as red and blue; and broken orange, containing blue, as well as red and yellow.

This description will be found sufficient to cover hues of any depth of shade, since the mixture with black, which most writers use to describe the production of dark shades, presupposes the mixture of the three primaries in uneven proportions.

It is obvious, from what we before said, that it is possible to produce many more tones of broken purple than of any variation of purple based on the combination of blue and red only.

As we have already remarked, however, not being either painters or dyers, but merely dealers with materials already dyed, we are not further concerned in the relative proportions of the primary colours in the various hues, except in so far as a knowledge of their constituent parts helps us to use or to arrange artistically the colours which nature or art have dyed for us.

We have, therefore, in dealing with colours to bear in mind that we have a limited number—seven, in fact, if we include neutral grey—and an almost infinite number of hues, resulting from the uneven mixture of two or three of the primaries in varying proportions.

Although no fixed scale is agreed on, we have practically ascending tones in each colour, and generally also in each hue, from what Chevreul calls the normal colour up to white; and we have generally also descending shades of these hues going towards black, although, as we have already seen, any shade below the normal tone must be a broken colour.

We meet, therefore, with what we must call scales, however deficient they may be, of comparatively pure yellow, of yellow tinged with red, and of yellow tinged with blue (greenish); also of broken yellow tinged with both red and blue. In broken yellows we get what are known as gold colours, apricot, fawns, &c., &c.

Scales of pure red, of red tinged with blue,—crimson—going up to rose pinks; of red tinged with yellow—scarlet—and of broken reds tinged with both blue and yellow. There

are an infinite variety of these reds—Venetian red, Greek red, terra-cotta, pomegranate hues, up to salmon pinks.

Scales of pure blue, of blue tinged with red, and of blue tinged with yellow; also of broken blues tinged with both yellow and red, producing a great variety of hues, and in its light tones giving us what we know as grey blue.

Scales of standard green, of blue green, and of yellow green; also of broken green, containing red, as well as blue and yellow. These give us all the varying shades of olive and grey greens.

Scales of standard orange, of red orange, and yellow orange; also of broken orange, containing blue as well as red and yellow. The dark shades of broken orange gives us rich browns, and we have warm fawns in lighter tones.

Scales of standard purple, of blue purple, and of red purple; also of broken purple tinged with yellow.

All these innumerable hues melt so imperceptibly one into another that it is impossible to draw lines of demarcation. If it should ever be necessary to do so, standards would have to be agreed on and fixed names given to them. At present it is only possible to call them broken hues of whatever colour is most obviously in predominance in them.

The dyed fabrics with which we have to deal are all practically hues, and it is before all things necessary to acquire that training of the eye which will enable us to discriminate hues. There is no great difficulty in this, as the majority of people possess the faculty, only requiring cultivation, which would enable them in looking at a dyed stuff to decide what its component colours are, and, therefore, what other colours will group with it harmoniously.

What is needed is a habit of intelligent observation and a little expenditure of thought. Every one will tell you that a primrose is yellow, and also that a buttercup

is yellow; but few take the trouble to realise to themselves that a primrose is a pale shade of bluish yellow (greenish, we should probably say), while a buttercup inclines to red, and is a much more intense colour—that is, nearer the normal tone of the scale.

The faculty of a true appreciation of colour, as well as the power which arises from this, of artistic grouping of hues, grows very quickly with cultivation, for it is, be it remembered, not a mere matter of individual taste, but an agreement with what we may call ideal beauty, which is fixed by geometrical laws, and is felt by all human beings alike.

That this mathematical principle of ideal beauty is, in the matter of colour at least, most imperfectly known, is no argument that it does not exist. At the present state of scientific knowledge on this subject we can but guess at true harmony by the eye, just as a musical child will pick out harmonies on a piano, but only when we succeed in combining the true harmonics shall we be

successful in producing effects which will please all.

It can scarcely be said to require educated taste to discriminate discord and concord in sound.

Bearing in mind, then, the infinite numbers of hues, with their ranges from dark to light, lying between each primary and its two secondaries, and again between each tertiary, we have now to consider what laws already known or agreed on by colourists, in default of accurate knowledge, we can apply to the arrangement of coloured fabrics or ornaments in dress.

Chevreul speaks of two kinds of harmony in colours, the harmony of contrast and the harmony of analogy; and here, for the sake of clearness, we will borrow a rule from music, changing one word only in its catechism: "Harmony is a succession of simultaneous" colours "combined according to a regular system." In music the individual combinations are called chords, and we shall do well

to use the same term when we come to speak of intervals in the scale.

We have already seen that the combination of the primary colours according to a regular system produces all other colours and hues, and in arrangement produce a beautiful neutralised bloom. We have now to consider the regular system upon which individual colours or hues should be grouped.

The law of simultaneous contrast of colour, as stated by Chevreul, is this:—

"When two contiguous colours are seen at the same time, they appear as dissimilar as possible, both with regard to their optical composition and their depth of tone. Therefore there may be at once simultaneous contrast of colour, properly so-called, and simultaneous contrast of tone."

An example which will occur to every one will explain this in the simplest manner. If you place a dusky or imperfect black against a deep black, the duskiness or greyness of the one and the intensity of the other become immediately strikingly apparent. This we all know from every day's experience. The same effect takes place between two tones of any scale in colours, one appearing lighter and the other darker by contrast.

In the same manner, when we place two colours together, they become as dissimilar to the eye as it is possible for them to be. They have the appearance of starting apart or drawing off from each other.

Thus we place a yellow having a red tint next to a yellow having a blue tint (better known to us as a "green" tint), otherwise an amber yellow against a primrose; both become more pronounced by the contrast: the red hue becomes much more striking in the one, and the blue hue in the other.

This simultaneous contrast of colour takes place when a primary is placed next its complementary. Red never looks so red as when placed next to green, nor green so vivid as when contrasted with red. The

same may be said of blue and orange reciprocally, and yellow and purple.

This also is a phenomenon with which most of us are perfectly familiar.

When any two colours, or any two hues, are placed together which have one primary in common, the colour which they hold in common seems to disappear to a certain extent from both. Orange placed beside green loses its yellow and becomes redder, and the green loses its yellow and becomes bluer. Orange and purple being placed together, both lose the red which they hold in common, and orange appears yellower, and purple bluer; and the same occurs with green and purple.

In hues varying between the secondaries the same law holds good. A blue green and a yellow green become respectively bluer and yellower, or start apart as much as possible when placed together. A red and a blue purple become redder and bluer by the contrast with each other, and so on through

all the varying hues of the primaries and secondaries.

The same law of contrast holds equally good in the tertiaries, and in the varying hues of brown, morone, and slate; but it is more difficult to trace as the admixture of the primaries becomes less simple. The names of these hues being so vague, it would be impossible to state the effect of contrast in words, though it is easily seen in practice; but a yellow brown will certainly appear yellower by being placed next a morone, and the morone redder by contrast.

We have seen that absolutely pure colour does not exist either in any known pigment, coloured light, or dye. It must be considered an ideal. Thus ideal red is one in which there is no mixture of either yellow or blue; ideal yellow, one free from blue or red; and ideal blue, one absolutely without either red or yellow.

It is easy to understand, therefore, by the law of simultaneous contrast of colour, why the nearest approach we can obtain to pure red should look most intense, or most red, when placed next to green, since any blue or yellow it might contain would be neutralised; or that blue, for the same reason, should appear most pure when placed next to orange, and yellow most perfect when contrasted with purple.

In harmonies of analogy there seems to be a law known to and acted on by practical workers with colours, as embroiderers, which has not yet been formally stated by any writer on colour so far as we know. It is that when a colour is repeated, either in the same tone or one very near it in the scale, at a little distance, and separated by neutral tints, both tones become more brilliant, whether they are different or the same. When a colour looks poor and *fade* in a piece of embroidery, it can be brought out and rendered more brilliant by the introduction of the same colour at a part of the embroidery where the eye can see both pieces of colour at

once with neutral tints between. It may well be that this is an effect of the mind only—that the eye seeks the repeat, and the attention is drawn to the colour; but I am under the impression, after many experiments with colouring, that there is an actual apparent brightening of both hues, or at least, of the smaller portion. This is, of course, equivalent to breaking the colours in painting.

An example of this brightening of colours in small detached pieces by analogy may be noticed any day. Blue eyes never look so blue as when a blue ribbon, or ornament of the same hue, is worn at the throat; and the same is the case with brown eyes when brown of the same hue is worn.

In fact, I have often noticed eyes of an undeterminate grey, or what have always appeared so, looking blue when a blue ribbon is worn at the throat.

Whatever may be the law, however, it is the practice of embroiderers to enrich their colours by repeating them at a certain distance with neutrals between.

In undertaking any arrangement of colours, therefore, it follows that we must bear in mind the relative effect they have on each other by contrast or by analogy, or, we might express it, by antipathy and sympathy.

On this effect Chevreul has the following remark: "The greater the distance between the colours, the more favourable will the juxtaposition be to their mutual contrast; consequently, the more analogy will they have."





VI.

COLOUR APPLIED TO DRESS.

EFORE going into the question of admixture of hues in a group, we will speak of arrangement of tones of one colour or hue, as it is a favourite in ladies' dress, and there is always safety in it.

The scale or gradation of any colour, from its darkest to its lightest tone, is of itself always pleasing; but it may be considered in the same light as a musical scale, from a monotonous repetition of which, as we know from experience, nothing pleasing arises to the listener, but rather a desire to rush out of

the house. It may be looked upon in the light

of an exercise, and very much like an exercise in colours was a lady I once saw with a costume of narrow flounces gradually ascending in tone from dark slate to light, and culminating in a bonnet of pale bluish white, the octave, perhaps, of her lowest flounce. There was nowhere about her even the cadence with which scales on the piano are wont to finish.

I think no one can doubt who thinks of the question at all, or who looks at a graduated scale of one colour or hue, that there are certain tones of it which appear the most satisfactory when grouped together. We are quite familiar with the expression, "Those two shades are too near together," or are a "bad match," which is the same thing; they are too near to each other in tone to be satisfactory alone. The same thing strikes us when two tones are too far apart, and there is no intermediary leading to them.

The musical scale is, as we know, divided into eight tones, the octave being given us

by nature in the phenomenon of the vibrating string. The tonic chord in music is also, as we know, derived from the vibrating string, and is the third, fifth, and octave of the key-note.

Until we know that there is some other necessary division of the scale of colour tones, and seeing that some fixed interval is needed in grouping, there can be no impropriety in speaking of these intervals in musical terms. It does not for a moment imply that they are correct or can be defended scientifically. Simply in default of more exact knowledge, we suppose a scale to be constructed of eight ascending tones of one colour or hue. We shall find, if we want to arrange these tones in groups, that the divisions of the musical scale will help us very much. This any one can prove to himself if he can obtain eight evenly graduated tones of any one hue. third, the fifth, and what we may call the keynote and its octave will be found the most pleasing tones to group together, or the fourth, sixth, and octave.

There is another arrangement which I have practically worked out and found satisfactory, which is the intervals expressed in the dominant chord in music.

Placing your eight tones before you (we are supposing them as nearly equal as it is possible to find in dyed fabrics), choose out the fourth and the fifth.

Placed together on a neutral ground, alone, they are unsatisfactory, too near together, neither a match nor a contrast.

Choose out now the seventh, and place it on the right of the fifth, and place the second tone on the left of the fourth, and you have a satisfactory result immediately. This is, of course, in music as if you struck F natural and G natural together, and alone, which is unpleasing; but add D natural below and B natural above, and you have a form of the dominant chord which is satisfactory to the ear.

We have said that when eight well graduated tones of a colour can be obtained, the most harmonious constructions appear to be the same as the common chords in music.

In forming a chord of colours, the ground-work or material on which the decoration is to go should be either the lowest or highest tone—that is to say, supposing the material to represent one, the decoration should be of tones bearing the relation of a third, a fifth, and an eighth above, or a fourth, sixth, and eighth; or if the ground is light, the tones used in decoration should be a third, fifth, and eighth, or a fourth, sixth, and eighth below.

The grouping which corresponds to the dominant chord in music—viz., the second, fourth, fifth, and seventh—should be used either with a dark material one tone below the darkest, or a light one forming one tone above the lightest.

In the absence of any fixed graduated scale, the intervals can only be judged by the eye; but the same intervals will be found to be harmonious in passing from one hue to another related one. We may take it, then, broadly that the nearer we can approach to harmonic intervals in placing tones of colour or of hues together the better result we shall produce.

But we have seen that all colours and hues melt so imperceptibly one into another that we have only ideally pure primaries, and that in hues it is impossible to fix any definite point where, for instance, blue becomes purple, or green yellow, or blue red or purple, or still less when we pass into green golds, olive greens, russet purples, and olive purples, and so on through all the ever-varying tints.

We find, therefore, practically, that we are constantly passing insensibly into other hues, and where we are intending to deal only with pure scales of one colour, we shall find the greatest care and nicety is required to keep in the same key. The slightest variation in the hue, occurring at the same time with the variation in the tone, will throw out the harmony. It will be as if some of the notes or tones were out of tune. By key we under-

stand in colours the primary, secondary, or broken tertiary, which is the leading hue of an arrangement, and no satisfactory combination can be made in colour without such a key-note, or as Field has expressed it, "the due prominence of one and subordination of the other two primaries."

Writers on colour agree that all arrangements other than one based on equal parts of the three primaries should depend on some one colour as a key. We have seen the necessity for observing true intervals, as far as they can be found, in arrangements of one key or scale. We have now to consider the much more difficult question of modulation, or passage into another key; and here again we will apply to music for assistance. modulating is meant a change of key. may be effected by passing at once to a new tonic or dominant, or, as is much more usual, by first introducing some chord characteristic, because indicative, of the key into which we desire to pass."

This is tantamount to saying in colours, that if we wish to pass from red to yellow, we use yellow tones of red leading to orange, and then red tones of yellow leading to yellow.

An arrangement of all colours is perfectly pleasing and harmonious when in gradations, and the passage from one to another is led to through related tones. Thus we may construct a circle commencing with pure yellow, and going gradually through reddish yellow and yellowish orange to standard orange; through reddish orange and orange red (scarlet) to pure red; through bluish red (crimson) and reddish purple to standard purple; through bluish purple and reddish blue to pure blue; and completing the circle through yellowish blue and bluish green to standard green, and through yellow green and bluish yellow to pure yellow.

A circle thus constructed is perfectly harmonious and beautiful, even though the strongest primary colours are placed together in close proximity as key-notes in the centre of the circle.

This gradation is one of hues only; but the same may be done with the broken colours passing from broken yellow, one which contains both blue and red, through any varying hues which are sufficiently nearly related to make the transition graceful and harmonious. An arrangement of this kind shows us at a glance that by proper gradations we may pass from any hue to another, even the most inharmonious, by using related tones as intermediaries.

Modulations from one primary to another, or even from a primary to a secondary, or from one secondary to another, are rarely made, except where large surfaces are to be decorated. In dress, therefore, we should scarcely need to pass from red to blue or yellow, nor from orange to purple or green direct. The colours used in dress are generally neutralised a good deal, and we should oftener require to pass from olive to blue or

russet to red or yellow. The principle, however, is the same; we must pass through some related key—that is, some tone in the scale which is equally a tone of the key into which we wish to pass—and in doing so the same intervals found best for grouping in scales of one hue will be most satisfactory in passing from one hue to another.

To make this a little clearer we may construct a scale of greens gradually passing from blue to yellow. There will always be one point in this scale where the transition is almost imperceptible—one tone, in fact, which is common to both, or so nearly so that it may be easily harmonised by adding a tone a third above the one and another the third below the lower tone.

In broken colours there are, as we have seen, all three primaries present, one or two in excess of the other. Modulations into another key may be made by adding a broken colour, which contains a stronger hue of the colour which you want to pass into, and then a second with a still stronger tinge, until it becomes predominant and the other two primaries are in abeyance.

Broken colours are, it is obvious, much more satisfactory to treat than pure ones, because their related tones are greater in number.

It is easy to understand from what we have said that one of the laws which has been universally acknowledged, directly or indirectly, by all writers on harmonious colouring, is that more or less neutral tints, variations of any of the tertiaries or quadrates, or what we may call the more indeterminate hues of the primaries in the high tones of the scale, must be the basis or groundwork of arrangement; that is, that the greater part of the colouring must be of a low tone, and that secondary or primary colours in their purity must only be sparingly used to give force and brilliancy, or to strike the key, as we should say in music.

A monotonous use of indeterminate hues without any colour is melancholy and un-

pleasing. It is a mistake into which many people have fallen in late years in an ignorant desire to be artistic.

They use what they are pleased to call art colours, and imagine themselves well dressed or their rooms well furnished in consequence.

An important law has been laid down by Field, and followed by most other writers, which is:—

"There can be no perfect harmony of colours in which any of the three primaries is wanting. And the distinctions of harmony depend upon a predominance of one, and the subordination of the other two, in the composition."

As a matter of fact, it is almost impossible to find any arrangement existing into which all the primaries do not enter in some proportion, partly from the fact of all our dyed colours being merely hues. We have, therefore, to deal with the subordination of two and the predominance of one, which will give us harmony in colour.

Owen Jones has pointed out how the use of the most brilliant primaries in due proportion—which he considers to be yellow 3, red 5, blue 8—produces the effect of a beautiful neutralised bloom; and we are accustomed to see this effect produced in Persian and Turkish carpets, where all the primaries are used in their purity—that is, as near purity as can be reached in dyed stuffs.

As Owen Jones had the best opportunity for working out his theory in practice and on a large scale, we cannot do better than apply this proportion, which has been found so satisfactory in practice, and which probably depends on the superior brilliancy of yellow over the other colours, and on the small amount of illumination in blue; otherwise the law of complementary colours would seem to point to an equal combination of the primaries as the ideal one.

One gathers from a careful perusal of his works, although I do not know that he anywhere states it in words, that all arrange-

ments of colour must be based on the idea of restoring the true balance of the three primaries by using them or their hues in varying proportions; as in complementary colours seen naturally by the eye, we look at blue and we see as much red and yellow as makes orange. Or we look at red, and we see as much blue and yellow as makes green. "We require in decoration," he says, "broadly, as much blue as yellow and red put together."

Again, he says, "Orange yellow will require to neutralise it blue purple; lemon yellow, red purple; scarlet red, blue green; crimson red, yellow green." In other words, we have a hue in which one primary preponderates. We want, to harmonise it, a hue in which the balance is restored, as we saw in speaking of complementary hues.

If we were able to measure the proportions of each primary in a hue, so as to be able to restore it actually to the harmonic ratio, always supposing that to be known or agreed on, no doubt our colouring would

be ideally beautiful. As that is impossible in the present state of knowledge, he who by his eye is able to arrange his hues so as to come the nearest to the true proportion is most successful, and is universally called the best colourist, since "the eye or the ear can only take pleasure in those ratios which are mathematically true."

Practically, there may be said to be but two modes of artistic colouring—simple and complex. In the former one simple colour is taken as the keynote or consummation of the scheme, and the harmony of the arrangement consists in the correct gradations of the tones, or what we have called grouping in harmonic chords.

In the latter, all the primary colours are introduced, either directly or indirectly, in their modifications in tertiary hues. Harmony, in this arrangement of colour, depends, as we have seen, upon the true proportions of the primaries being preserved. Prominence may be given to all in equal quantities

(or what appear to the eye equal quantities), or one may predominate over the other two, or two in combination over the third; but in order that the colouring may be perfectly harmonious, we must aim at such a combination of hues as will form a complete scheme, having all the three primaries in harmonic ratios to each other.

Although we have purposely avoided touching on the question of mixtures of coloured pigments or dyes, we may be allowed to point out that there are certain colours in dyes and in painting which are allowed by competent judges to be bad. To give one or two familiar examples, the hue which was known as "magenta," and a miserable pink which for a time existed under the name of solferino. There are also certain greens and reds in well-known pictures which are considered harsh and bad. May it not well be that these hues are the result of inharmonic ratios of the colours producing them?

Before proceeding to discuss the details of

colour as applied to dress, we will recapitulate the rules we have already noticed as being agreed on by colourists.

- 1. First, that we must take into consideration the law of simultaneous contrast, by which any two colours or tones of colour become as dissimilar as possible, and the law of analogy, by which they become more alike.
- 2. We may work either by harmony of contrast or by harmony of analogy.
- 3. In all good colouring the greater portion should be in low or neutral tones, and pure colours only added to produce brilliancy. To which we might add Owen Jones's rule, that dark or broken colours should be used for the lower portions of objects, and bright or light tones for the higher portions.
- 4. No harmonious arrangement of colours can be made from which any of the three primaries is wholly absent, and the variations of harmony consist in the predominance of one and the due subordination of the other two.

To which we may add the experience of Owen Jones, that in obtaining real harmony in colour it is necessary to restore the ideal balance of the primaries by using the just proportions of those hues, or broken colours, in which they preponderate.

Owen Jones, as we have seen, considers the true balance to be yellow 3, red 5, blue 8; and that this proportion is satisfactory in practice, any person may assure themselves by taking eight strands of blue silk, of as pure a colour as can be obtained, five strands of red, equally pure, and three of yellow, and twisting them together into a loose cord; bearing in mind that yellow is of very much greater illuminating power than the other two, that red occupies the mediate, and blue the lowest position in illumination.

The following rule laid down by Hay seems to commend itself as being peculiarly suited to the arrangement of colours in dress:—

"In their contrasting powers, colours must bear relation to one another in point of tint (tone), hue, and shade. A tint (tone) of one colour brought into an arrangement as a contrast or equivalent to a tint (tone) of another colour ought to be equal in diluteness; and the same holds with colours receding from their original purity towards black."

Hay constantly uses the word "melody" in speaking of the arrangement of colours, but he seems to confuse it with harmony.

Melody, as it is known in music, can only be applied to colours where there is a rhythmical repetition of tones in a systematic form, but in any arrangement of different hues or colours it may be said to be necessary that they should be melodious, that is, must contain a complete idea, whether this phrase is repeated in the decoration or not.

With regard to Hay's rule just quoted, we might remark that although it holds good as to a tint "brought into an arrangement as a contrast or equivalent to a tint," it does not affect the arrangement of tones in

what we have called chords; the two tints which he says should be equal in diluteness being the common tone from which transitions or modulations can be made.

In all decoration the same rule holds good, which is the groundwork of harmony in painting; namely, that no colour should be detached or isolated, but must be repeated or led up to in other parts of the composition, known in painting as breaking the colours.

For the sake of clearness, we will recapitulate the colours and hues with which we have to deal in making any arrangement with dyed fabrics.

We have seen that pure colour does not exist except ideally. Bearing this in mind, however, we may have a scale of what we may agree to call pure yellow, red yellow, blue yellow, and also one of broken yellow, into which both red and blue enter; and according to the proportions in which these are combined we get dark shades of yellow through brown to black.

We have also scales of pure red, blue red (crimson), yellow red (scarlet), and broken red, into which both blue and yellow enter, going through morone to black.

Again, we have scales of pure blue, yellow blue, and red blue, as well as broken blue.

In the same way we may have scales of standard green, blue green, yellow green, and scales of broken green into which red enters.

We may have scales of standard orange, red orange, yellow orange, and of broken orange, into which blue enters; scales of standard purple, red purple, blue purple; and scales of broken purple, into which yellow enters.

It is quite obvious that pure primary colours and primary compounds—that is, the secondary colours and all their hues—may be imagined in an ascending scale, starting from what Chevreul calls their normal tone, and going up to white; but that the moment they begin to descend towards black they

must necessarily become broken colours, as it is necessary to mix all three primaries to obtain darker shades than the normal tone. A dark shade of crimson may have red predominating and blue subordinated, but it must have also some yellow; for the admixture of black, which is the term which colourists use for describing the production of "shades" (that is, tones below the normal tone), presupposes the presence of all the three primaries in certain proportions.

It must be evident that whether we call the tertiary hues russet, olive, and citrine, or by any other names, they are merely broken shades produced by the mixture of the three primaries in the transition towards black.

According to Hay and Field, russet has I yellow, I blue, and 2 red; olive, I red, 2 blue, I yellow; and citrine, I blue, 2 yellow, and I red; but it is enough to state, without committing ourselves to proportions which are not agreed on, that varying mixtures of the three primaries give us all the hues of what,

for want of a better name, we may call russet, olive, and citrine.

We know by experience that olive greens become olive browns as they descend the scale, and that we have orange browns and red browns, and purplish browns.

By the addition of black to a perfectly neutral grey we do not get any variation in hue, but only in tone, since the proportions of the primaries are not altered.

In woven fabrics pure dark grey is produced by the mixture of white and black threads, with a great preponderance of the black threads over the white.

Black and white fabrics become also practically dark and light shades of neutral grey in use, as there is never more than a small portion at a time which presents to the eye either blackness or whiteness.

Highly glazed surfaces, which reflect most light, such as highly glazed linen or satin, approach most nearly to white, and are consequently most trying to the complexion. Velvet approaches most nearly to black, from the preponderance of dark shadows in proportion to the small amount of light which it reflects.

The dress being the largest portion of a lady's costume should, therefore, be of some broken or indeterminate colour.

It is scarcely necessary to speak of arrangement with black or with white dresses, because they are so universally becoming and so easy to treat. Black, as we have seen, has a tendency to modify or lower colours, and to heighten the white of the skin by contrast. It is most generally becoming when of lace or some softly draping material. Black velvet, from the depth of its dark tones, is trying to any but very perfect complexions, unless softened with lace. Any colour may be worn with black, but as a rule colours which take varying shades in the light, or arrangements of three or more tones of a colour, are most pleasing. Pure or broken tones of red, yellow, or orange are best with black; blue,

green, and purple are too cold to be satisfactory.

The more pure a white is, the more trying it is to the complexion. Thin muslin gauze or lace, which take grey shades, alone can be worn with imperfect complexions; or cream whites, which are, of course, the extreme tone of orange or of broken yellow. White silk or satin, or any kind of thick muslin, is proverbially unbecoming to all but the purest and most youthful complexions; but Indian muslin, giving deep cream reflections, is generally becoming.

All delicate colours can be worn with white as a rule. If it is a cream white, salmon pinks or broken reds or yellows should be selected.

What is known as pearl white is the palest tone of purple, and therefore mauve or broken purples varying in any direction towards red or blue will look well. Pure white, or French white, which is the palest tone of blue, alone looks well with pale blue. With cream the blue is apt to look harsh and metallic.

It is a mistaken idea that a black or a white bonnet or hat may be worn with any dress. A black or a dead white bonnet introduces a discordant element, for instance, in a brown or morone costume.

Taking dark costumes first, a dress or costume of a rich morone may be harmonised or treated in many ways.

Morone is a dark shade of blue red, with yellow in subordination. It may be treated as a dark shade of crimson, then, and worn with crimson as the key-note, and intermediary broken shades leading to the morone ground; but in this case the higher tones will require to be very carefully selected so as to keep the bluish red always in predominance. Or it may often be more harmoniously treated on the principle of restoring the balance of the primaries, and wearing with it some low-toned broken colour in which yellow is predominant, as sable; or, in decoration, a broken pink which has a good deal of yellow in it. If green is brought in at all, it must of

course be a broken or olive green, but with a decided tendency to yellow.

What is known to us as a rich reddish brown may be taken as a dark shade of orange, and worn either with low tones of broken orange—as sable—or, by analogy and with proper intervals, pure orange, or with light tones of broken yellow.

If pinks are worn with this brown they must be bluish pinks, harmonising by contrast; and greens must be bluish or grey greens.

An olive brown may be treated either with light tones of olive or with broken reds. Or it may be worked up through light olives to grey blues.

It is practically impossible to give directions in words for these treatments of broken colours, because no two people are agreed in the names for them, but the principle will be quickly learned with a little practice, and the eye will always pick out harmonies when once it is trained to examine colour critically.

It will be easy to understand that olive greens—which contain red as well as blue and yellow—and grey greens—which also contain the three primaries in a different proportion—are the easiest to deal with in dress or decoration. They agree with broken reds, broken purples, broken blues, and broken orange. It seems to have become fashionable, in consequence of this fact having been ascertained, to use olive and grey greens as decorative colours, with a very melancholy effect.

No one, however, thinks of using drab, or even fawn, as a decorative colour; but broken, or what some people call, not inaptly, "dirty," hues of green are thought by some people to have an indescribable air of good taste about them. They are constantly worn without relief by people with muddy complexions (in which they intensify, by contrast, all the purple tints) and of indeterminate orange hair, of which they also intensify all the broken and unpleasant hues.

Pure, or comparatively pure, colours should

be a part of each arrangement of hues, but they should be, as we have seen, in very small proportion to the broken and indeterminate or neutral hues. Without them, however, there can be no real harmony of arrangement. The key-note must be struck, and form the end of the phrase. The key-note might be even a broken hue of any of the six positive colours—yellow, orange, red, purple, blue, or green; but it should be a distinct colour, not a neutral one, such as a low olive or grey green, a fawn, or drab, or muddy purple.

The tints known to us now as "old gold" are broken shades of red, orange, or yellow, as the case may be, and are sufficiently brilliant to form a key-note to a scheme of colour. The same may be said of almost all broken reds. Broken tints of light blue also form very effective key-notes, and some low tones, such as we know as peacock blues; but unless these are sufficiently brilliant the effect will be sad and monotonous.

To repeat once more the rule, the colours worn with or used as decoration upon deep shades of broken colour, such as deep red, marone, rich brown, olive brown, slate, navy or purplish blue, prune, &c., must be either higher tones of the colour which predominates in the mixture, with proper intervals or intermediary tones introduced, or they must be chosen on the principle of restoring the balance of the primaries, and must be broken tints of some mixture of colours in which the primary, which is in obvious subordination in the ground, is in predominance.

Exactly the same principle holds good with regard to the treatment of light colours. If the dress is of some pale tone of broken colour, such as pale gold, pale grey green or blue, salmon pink, cream, or butter colour, the colours worn with it, or used as trimmings, should either be darker tones in the same key, or must be tones of a contrasting key in which the balance of the primaries is restored. In either case there must be inter-

mediary tones leading to the key-note to avoid sudden and harsh transitions.

Certain treatments of colour which are universally pleasing will occur to every one: gold embroidery, or embroidery on dead gold grounds, used with brown material; trimmings or embroidery on red, toning to rich damask or pinkish white; cream or butter colour and brown, and many others.

In ladies' dress so much can be done in giving the key-note and harmonising the whole by a flower of the right tint worn on the dress; and the intervals in tones can always be given by a feather, which is rarely dyed all of one tone, but may always be obtained graduated in shades. Dark velvet or plush of itself takes graduated tones, and is, therefore, so much more beautiful for decoration than silk or satin. The Spanish madroños, tufts of coloured silk, even when dyed all one tint, take numerous well graduated tones when worn as decoration.

Isolated patches of colour separated by

harsh contrast from the ground they are on must always be avoided. Many a bonnet otherwise becoming to the wearer becomes aggressive to her complexion by the use of satin strings tied under her chin. The tint of the satin may be exactly the same as that used in the bonnet, but the "simultaneous contrast of colours," spoken of by Chevreul, acts in a baneful manner in the one case, while the analogy with the reds in the complexion is pleasingly pointed out by the other.

It is necessary, as we see, therefore, to consider both the effect of contrast and of analogy of the colours worn near the face.





VII.

EFFECT OF COLOURS ON COM-PLEXION.

OTHING is more difficult, nay, more impossible, than to lay down rules for the use of colours with regard to individual complexion, and for this very obvious reason: no two people would agree in their description of the tints in a complexion, which under the most favourable conditions is an extremely complex combination of delicate tones of many varying hues. Broadly, it may of course be said that red and yellow predominate very largely over blue, and that the general tone of a good com-

plexion is a very delicate pinkish orange of the palest possible hue, approaching to white.

Complexions, however, vary from day to day and from hour to hour. The effect of cold on some is to make them blue or purple; in others it deepens the reds in the cheeks and in the general hue of the skin. Heat, again, pales some skins and makes them look fairer or more pink, and on others, sometimes the fairest, produces a harsh brick red. The condition of the health alters the skin, making it bluer, or yellower, or browner. So much for the difficulties of dealing with complexions.

The state of the health also alters the colour of the iris and of the white of the eye. The hair varies equally with the condition of the body, sometimes being dull and colourless, sometimes bright and brilliant in hue; this more especially with what is known as golden or auburn hair.

For practical purposes we may broadly divide good complexions into three:—

1. Pure white and red (comparatively).

- 2. Fair, or where the whole skin is tinged with a delicate pink, deepening slightly in the cheeks.
- 3. Dark, or clear olive, with or without red in the cheeks.

(It must be remembered that the reds in a good complexion are of a bluish tint). All complexions other than these are more or less muddy, and therefore difficult to treat.

The colours of the hair are—

Black, or the darkest shade of brown, which generally goes with a dark complexion and dark eyes; occasionally, in what is called the Irish type, with blue eyes and a clear red and white complexion, never with what is known as a fair one.

Brown hair, dark and light, including golden—that is, light brown hair of a distinct hue, taking golden lights; generally found with hazel, blue, or grey eyes, sometimes with a rich brown, the colour of the hair.

Red or auburn hair, really a tawny orange or coppery hue; generally goes with

brownish eyes, partaking of the hue of the hair.

Yellow hair, the most unbecoming of all, generally found with light blue or greyish eyes; and colourless fair hair, of no distinct hue, also generally seen with grey or blue, sometimes very light hazel eyes.

Generally, by contrast with the strong orange in the hair, the complexion of red-haired people is extremely white. Sometimes the yellow in it is restored by freckles; very rarely is the complexion a pure white with rose red in the cheeks and lips. When this is the case, nothing but white or black or very dark myrtle green can be worn. Blues and yellows, as intensifying the orange in the hair, greens, as bringing out the bluish reds in the cheeks and lips, pinks and reds of all descriptions, must be avoided, to prevent bringing into prominence the want of harmony in the natural colouring.

Black or the darkest shade of brown hair with a clear complexion, either of pure olive

or with red in the cheeks, is the only type which can wear strong or intense colours near the face. Yellow, red, or even orange is sometimes becoming.

A clear white and red complexion with brown hair may wear almost any light tone of colour or unrelieved black and white.

The fair type as a rule looks best with pale blue, which harmonises with the pale salmon pinks of the complexion, and by analogy intensifies the blue in the eyes. Pinks of the same tone as the complexion are often also becoming; and some blondes, if the hair is not yellow, look well with an intense orange, which seems to render the complexion more delicately beautiful from contrast.

As a rule, brown is becoming to all persons with brown or auburn hair, unless other colouring in the complexion clash; but the brown must be chosen with an eye to the tint in the hair, either to heighten its hue or lower it by contrast, as may be desirable. Red hair never looks so well as when toned

with a rich brown, that is, a brown with blue and red in predominance and yellow subordinate; and where the complexion will bear it, a modulation into reddish yellow or golden tints looks very well; for instance, a dark brown velvet hat or bonnet with the colours of a pheasant's breast in the trimming, or with brown trimming, toning to golden.

There remain the nondescript, or more or less muddy complexions. For these browns and blacks, the latter softened to low greys by lace or other transparent material; sometimes light greys, or tones of white alone are admissible for bonnets. The colours worn as decoration should be carefully chosen, not in any case bright or vivid.

The woman who makes a study of her appearance, with a view of enhancing her good points and modifying to the greatest possible extent her bad ones—and it is to be hoped that all women will do this, if only from an unselfish wish to please others—must ascertain as nearly as possible the kind of

colouring that suits her, and then religiously keep to it, not led off by the desire of wearing something which looks well on her neighbour or is pretty in itself. This is more especially the case with those whose complexions are not perfect, and who are not in the first bloom of youth.

They may easily remember that by the law of simultaneous contrast blue will intensify the orange in their complexion, that orange will give it a purplish tinge, that green will generally make it look bluer, and so on. No one wishes to make their skin look orange or purple, or blue or green, even in a very modified sense.

Black, it must be remembered, never looks black; it throws off greys from all points but one or two, and may be considered tones of dark grey in draping. The same may be said of white. It takes tones of pure pale grey in the folds if it is a pure white, of cream colour if it is a cream white. This is especially the case with lace or thin transparent materials,

either black or white. It is the softening effect of these grey shades that makes lace, especially black lace, so becoming to every one, but above all to elderly people.

Black draperies lower or soften the tones of the colours with which they come in contact, and generally whiten the skin by contrast.

Pure white can only be worn with the freshest of youthful complexions.

The nearest approach that can be obtained to white is a highly starched and glazed linen; and the example of the unfortunate Eton boy, with a large horseshoe of this trying colour round his neck, ought to be a sufficient warning to ladies not to submit their faces to such a trying ordeal. And yet the lesson is lost, for now and then, when the fashion comes in, we see all kinds of muddy complexions arrayed in extensive collars or frills of glazed linen, which bring out all the disagreeable tints in their skin to their highest possible prominence.

Perfectly neutral grey, the mean between black and white, is best understood as shepherd's plaid, or narrow black lines on a white ground. All other greys than this neutral hue are toned towards red or blue, or towards yellow, giving a greenish hue generally very unbecoming and unpleasant.

To sum up, most women can see for themselves what is becoming to them. There is really no way of ascertaining the colours they can wear with good effect except by experience, actually trying them against the face or at a little distance. The hints we have given can but help to a decision; but having discovered the colours they cannot wear, let them avoid them religiously.

There is safety generally in black and white, otherwise greys, as we have seen, also in dark browns or marones. Green, orange, and purple, or dark blue, are the most universally unbecoming colours near the face, but dark olive or myrtle green and low plum colours, or dark purples with a good deal of

yellow in them, are often becoming as dresses, as well as very dark reds almost marone, rich browns, and purplish, almost invisible, blues. Navy blue must be very dark to be becoming to any but fair and delicate complexions.

We suppose, therefore, that each person will study her own complexion, hair, and eyes, and will select the colouring of her dresses and bonnets or hats according to what she finds most becoming to her, remembering that she can wear in summer very different colouring from what she could stand in winter.

The hints we have given will be at least a guide in ascertaining what colours are likely to enhance the beauties of her complexion by contrast or intensify it by harmony of analogy if it is a good one. If it has the misfortune of being a bad one, she will know beforehand what colours are likely to bring out the purple, blue, or green tones in it by contrast, and avoid them.

The rule that low or neutral hues should form the groundwork or greater portion of the dress is generally acted on. It is very rarely that one sees a blot of primary colour, such as a woman in a turkey-red dress, though such things have been seen, and on artists' wives, too. A dress of bright intense blue, purple, or green is universally agreed to be "vulgar" at the present time; but unless some principle is allowed to underlie artistic use of colours, there is no reason why fashion should not succeed in introducing once more the most horrible combinations. As Hogarth said, "How gradually does the eye grow reconciled even to a disagreeable dress as it becomes more and more the fashion, and how soon return to its dislike of it when it is left off and a new one has taken possession of the mind. So vague is 'taste' when it has no solid principle for its foundation."

Dress, like decoration, should never be a haphazard combination of garments or of colours; it should be always a thought-out arrangement, as far as is possible in accordance with artistic principles.

The sense of completeness or of repose, which is necessary to produce the perception of beauty, requires that there shall be a beginning, a middle, and an end in all arrangements, and that all the parts shall be necessary portions of the whole.

In a lady's dress, supposing that the groundwork, that is, the colours of the dress or of the mantle, are sufficiently neutral, many satisfactory harmonies may be produced by the selection of the gloves, the bonnet, the furs, or the trimmings, without needing any extraordinary number of costumes; only let all these apparently small matters be taken into consideration, and not selected without any regard to the other portions of the dress.

"True beauty results from that repose which the mind feels when the eye, the intellect, and the affections are satisfied from any want," said Owen Jones; and it is proverbial that when a woman is perfectly dressed it is

impossible to say what she has on, so harmoniously is the whole effect worked out by attention to each detail.

As a rough and ready rule, it is the ugly and inharmonious elements in a woman's dress that attract attention. If the dress is completely harmonious, the woman herself looks charming; but no one knows or notices why she looks so well, except by an effort of the mind, and nine people out of ten would be unable to say afterwards anything more than that she was "beautifully dressed."

There is another reason why broken and indeterminate colours are so much more pleasing as the basis of dress. Art is never so beautiful as when concealed. There should never appear to be anything laboured or difficult about it. When a neutral tint is used as the basis, and a harmony of contrast—or what we have called a restoration of the balance of the primaries—is worked out from it, the effect is perfectly restful and satisfactory. No one is conscious that the three

primaries are there, but the harmonious effect is in reality produced by their presence in true proportions. And the uncomfortable and dissatisfied feeling which one experiences on looking at a dress, or at any decoration, which is cold or monotonous, or gaudy and obtrusive, is produced either by the harsh and ill-considered combination of the primary colours, or by the exclusion or undue subordination of one of them.

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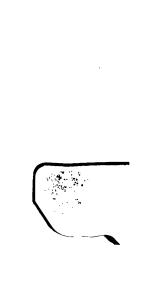
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